

BIOLOGICAL EVALUATION

COOPERATIVE GYPSY MOTH PROJECT

FOR

NORTHERN INDIANA

2008

Gypsy moth is moving into northeastern Indiana from the infestations in Michigan and Ohio. Its movement is by natural spread and short distance transport by human activities. To detect the introduction of this pest, the State of Indiana has surveyed since 1972. From 1988 to 1998 the survey used a one-mile grid in the northern third of Indiana and a two-mile grid in the remainder of the state. In 1999, Indiana adopted the Slow-The-Spread (STS) survey protocol developed by the USDA Forest Service. Traps are set in detection (2K or 3K) and delimit (250M, 500M or 1K) grids across the state. The 2007 survey set 12,985 detection traps and 3,022 delimit traps.

The STS analysis of the 2007 trapping data identified potential problem areas in five counties in northern Indiana, one county in central Indiana and two counties in southern Indiana (Map 1). The analysis identified higher or equivalent moth catches in delimiting survey grids placed at each site compared to detections and delimits in prior years. The STS analysis indicates that gypsy moth populations are stable or increasing in the potential problem areas and recommends action.

In the five northern counties with proposed treatment sites, the mean number of gypsy moths caught in detection traps generally increased in 2003, decreased from 2004-2006, then increased in 2007. (Table 1 & Figure 1).

Map 2 and 3 show the number of gypsy moth detected in each county for 2007 and 2006, respectively. For Delaware, Scott and Monroe Counties, an eradication project is proposed for 2008. Information for Delaware and Scott Counties is available in the "2008 Cooperative Gypsy Moth Project for Central and Southern Indiana". Information for Monroe County is available in the "2008 Cooperative Gypsy Moth Project, Brownstown Ranger District, Hoosier National Forest and adjacent private lands".

Map 1 shows various moth lines across northern Indiana based on STS analysis of 2007 data.

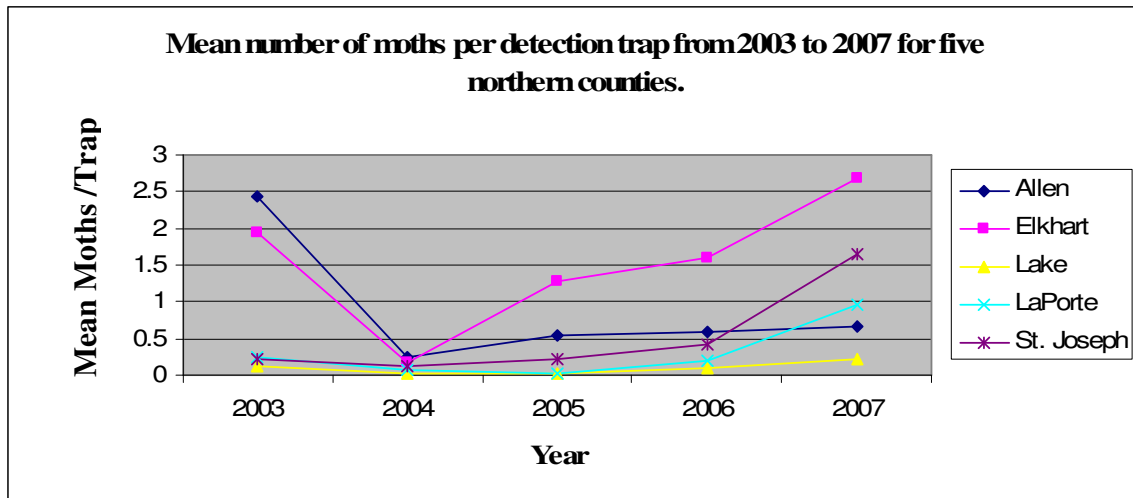
Map 4 shows the 10-moth line from 2003-2007. This analysis places the STS action area below the 10-moth line. The 14 proposed treatment sites in 5 counties are based on the trapping surveys, STS analysis, egg mass detections and habitat.

The site and moth trapping data can be viewed at the STS website - <http://da.ento.vt.edu/Region1/d2007/tabdec.html>

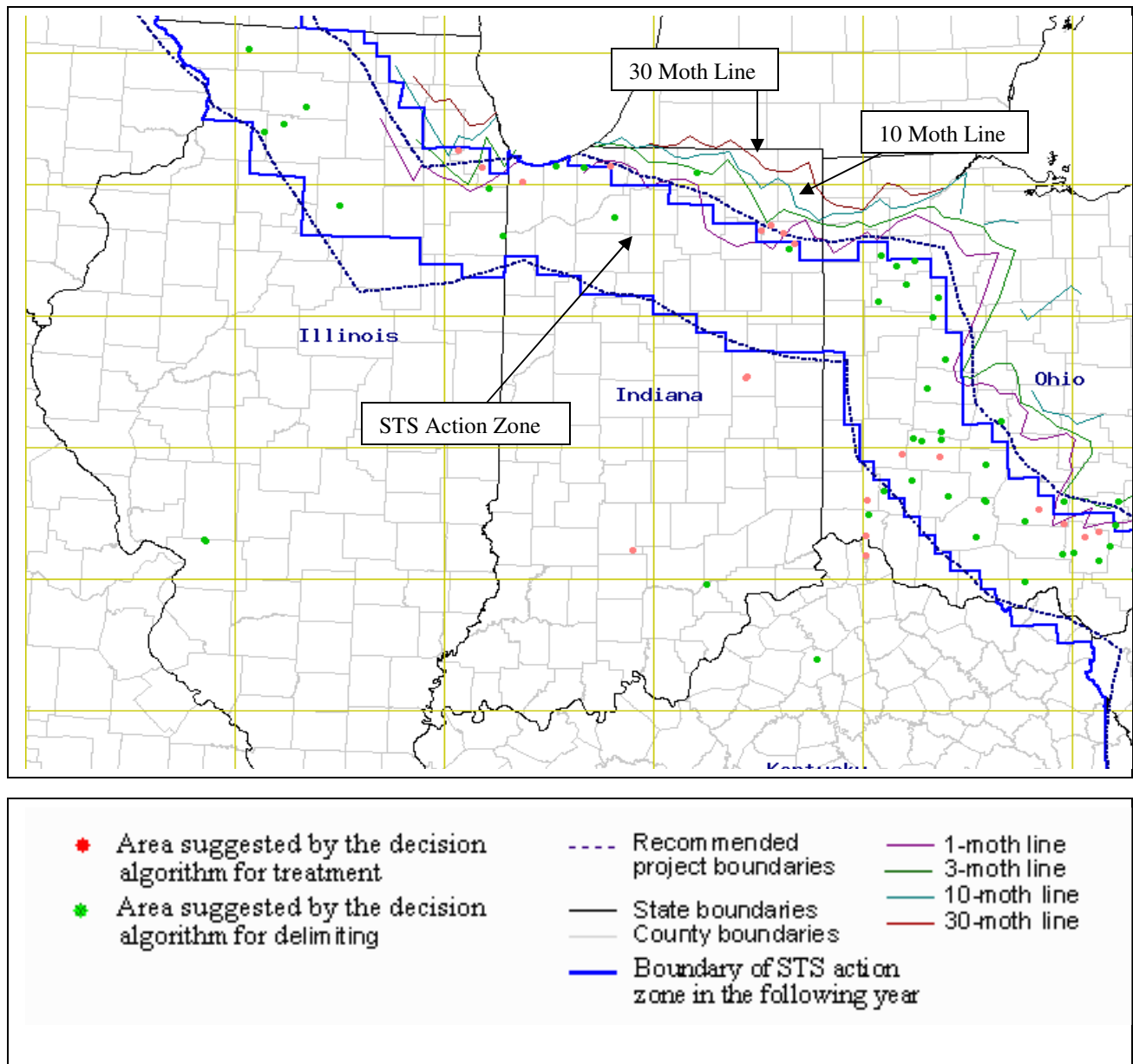
Table 1. Mean number of moths per detection trap (milk carton and delta) in the proposed counties for 2003 to 2007.

County	2003	2004	2005	2006	2007
Allen	2.43	0.24	0.55	0.60	0.66
Elkhart	1.95	0.17	1.29	1.59	2.67
Lake	0.12	0.03	0.03	0.11	0.21
LaPorte	0.24	0.07	0.03	0.20	0.97
St. Joseph	0.21	0.12	0.21	0.42	1.64

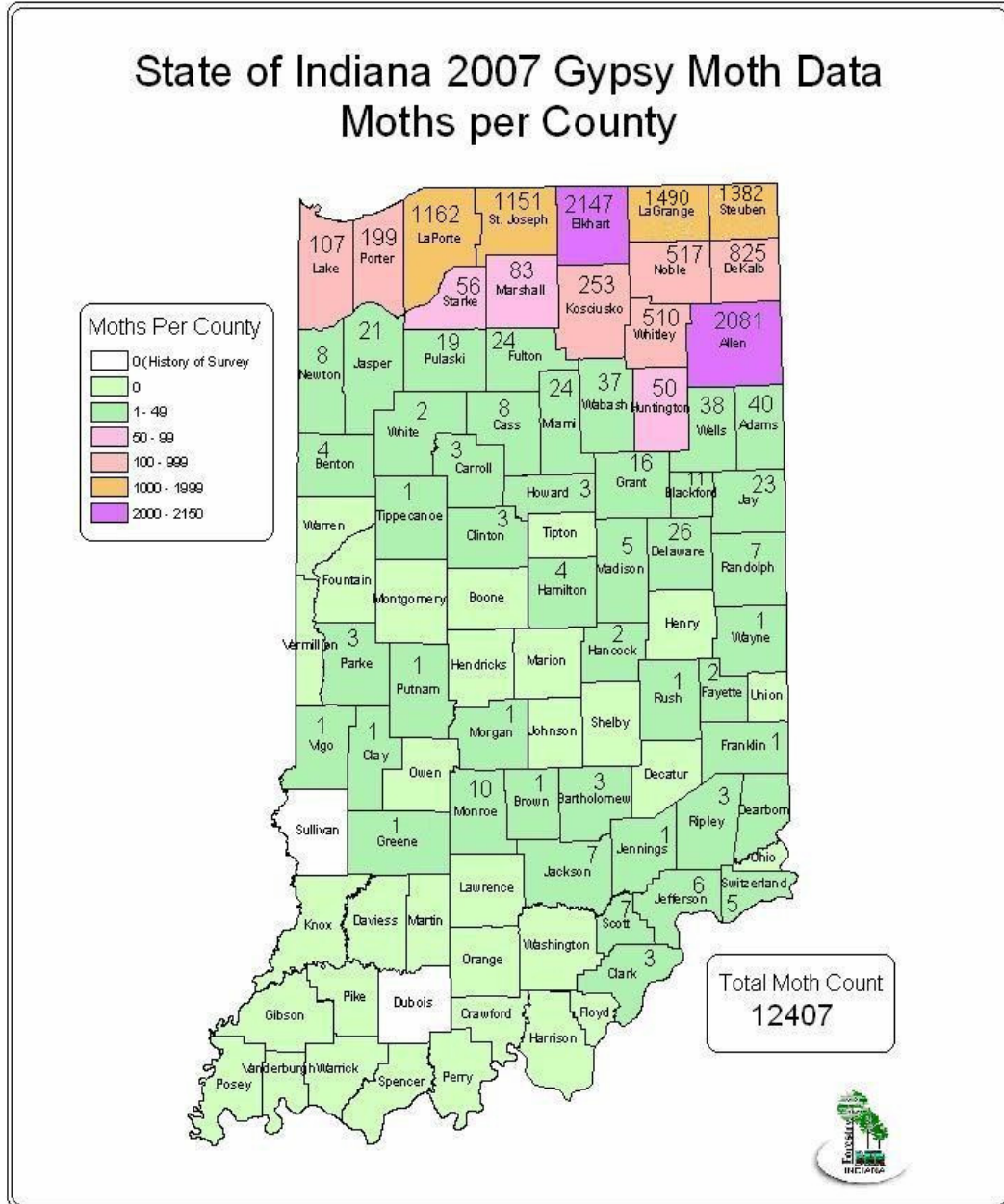
Figure 1: Mean number of moths per detection trap from 2003 to 2007 for five northern counties.



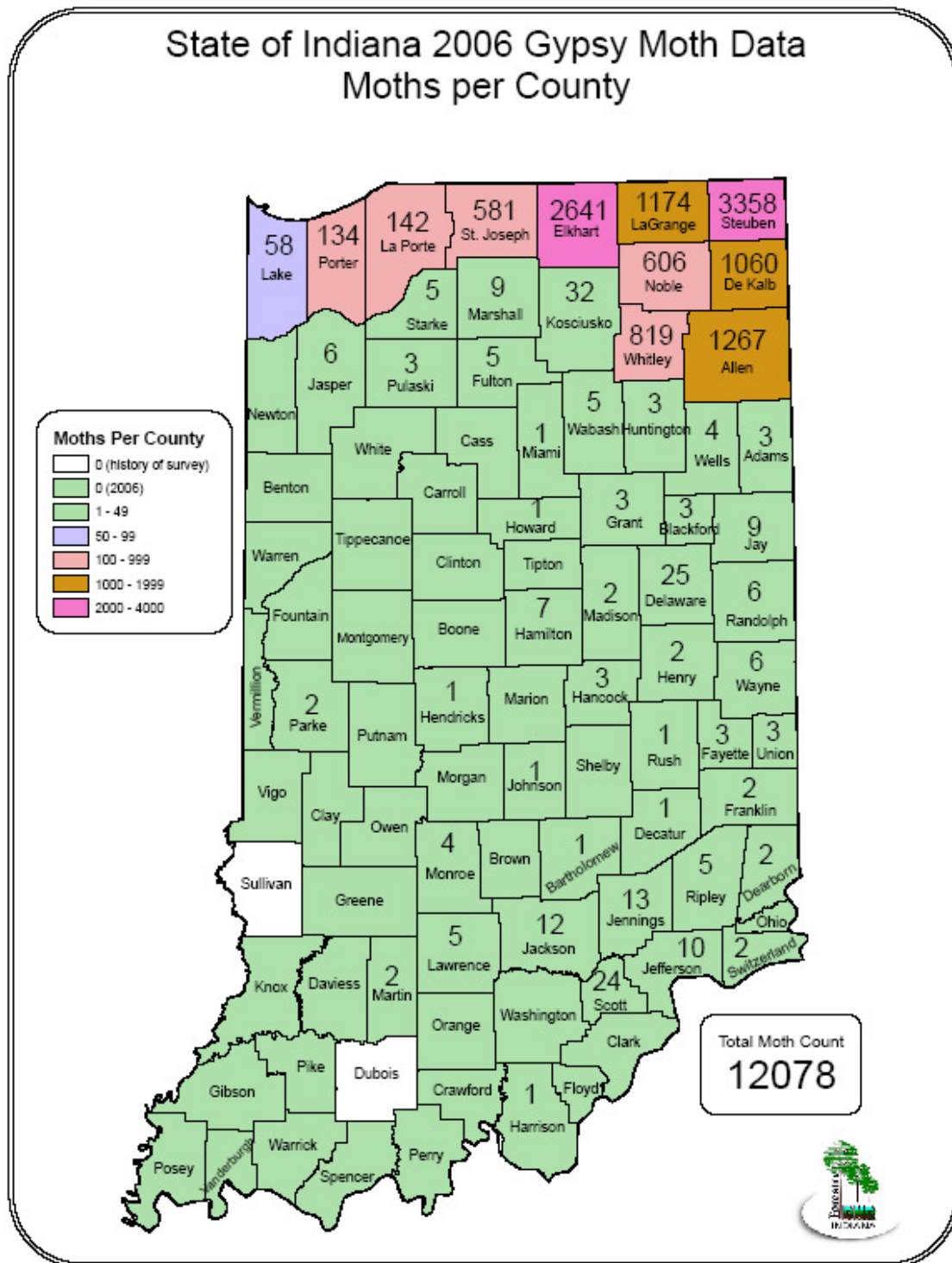
Map 1. Results of the 2007 Gypsy Moth survey showing potential problem areas by Slow-The-Spread analysis for Illinois, Indiana and Ohio (red dots indicate suggested treatments and green dots indicate suggested delimit survey).



Map 2. Male moth catches by county for 2007.



Map 3. Male moth catches by county for 2006.



Map 4. The 10-moth line of Gypsy Moth in Indiana from 2003 to 2007.

